



Clopyralid in Compost

Facts

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Herbicide contamination raises problems for compost

What is clopyralid and why is it a problem in compost?

Clopyralid is a long-lasting herbicide used to control broadleaf weeds such as dandelions, clover and thistles. It does not pose a threat to humans or animals. It passes through animals and the composting process with little breakdown. The fact that it doesn't break down presents a problem for compost. Compost contaminated with clopyralid may harm certain types of broadleaf ornamentals and vegetables such as beans, peas, peppers, tomatoes and potatoes.

Clopyralid is sold for use on turf by several manufacturers under a variety of trade names, such as Confront, Lontrel, Scotts Proturf Fertilizer Plus Confront, and Riverdale Millennium Ultra. Typically, it is applied to lawns by lawn care companies and used alone or in combination with a fertilizer as a "weed and feed" product. Because grass clippings are prevalent in compost production, clopyralid could be getting into composts – threatening ornamentals and vegetables.

Clopyralid is also sold for agricultural use under the trade names Curtail and Stinger. Straw and manure used in compost may also be contaminated with clopyralid.

What role does the Department of Agriculture play?

The Department of Agriculture enforces state and federal laws and rules pertaining to the manufacture, sale, distribution, use and disposal of pesticides in Washington. It has investigated complaints of damage to some vegetables grown in soil treated with compost.

The Department of Agriculture is considering new rules to restrict the use of clopyralid. After reviewing numerous documents and letters received in response to the proposed new rules, a Technical Advisory Committee was formed to recommend possible regulations. Members include representatives from the Department of Ecology; the lawn care, agriculture and compost industries; Washington State University (WSU); the City of Spokane; Seattle Public Utilities and others.

Options under consideration to address the problem include banning the use of clopyralid, placing additional restrictions on how the chemical is used, and preventing treated items from entering into compost facilities. The Department of Agriculture intends to have rules in place prior to this year's growing season, which begins around April 1.

When did this first arise as a problem?

The problem came up in 1999 when Department of Agriculture investigators found symptoms in plants grown in compost from the Spokane Regional Solid Waste System. Similar symptoms showed up in 2000 in plants grown in compost from the facility at WSU. Investigators confirmed the problem was caused by low levels of clopyralid in the compost.

The problem was believed to be confined to the eastern side of the state where the chemical is used extensively in agriculture and lawn care. In 2001, however, the Department of Agriculture tested compost from five composting facilities in Western Washington and found clopyralid well in excess of amounts that have been shown to impact sensitive plants.

What role does the state Department of Ecology play?

The Department of Ecology regulates compost through its solid waste rules. Officials from Ecology and Agriculture have been meeting to consider possible solutions to the clopyralid in compost issue.

What does the plant damage look like and what types of plants are affected?

Symptoms of herbicide damage include slight twisting or cupping of leaves and other distortions of new growth. Tomatoes, alfalfa, beans, peas, potatoes and peppers are very susceptible to damage at low levels of contamination. Photographs of herbicide damage appear on the WSU Web site at <http://css.wsu.edu/compost/herbicide/pictures.htm>.

How does this issue affect consumers?

Consumers need to be aware that their desire for weed-free lawns could cause damage to their vegetable gardens and broadleaf ornamentals. Lawn clippings from properties treated with an herbicide containing clopyralid are not to be composted. Consumers using possibly contaminated compost should avoid using it near sensitive plants. Vegetables grown in soil treated with such compost are safe to eat, according to a WSU environmental toxicologist.

How does this issue affect agriculture and the recreation industry?

If rulemaking limits the use of clopyralid, it could cause a problem for agriculture. The product is used to control weeds that are detrimental to the quality or production of some crops.

Timothy hay and wheat growers in Eastern Washington use clopyralid because it is one of the most effective herbicides for controlling thistles on range, pasture and forestland and it is not toxic to livestock or wildlife. Timothy hay from Washington is highly prized in Japan where customers want a consistent, quality product for their horses.

In the recreation industry, golf course operators use clopyralid to control dandelions and clover. They like the fact that it is long lasting, which means they can use pesticide less often and, therefore, lower costs. Their frequent grass cutting operations generally do not result in clippings being sent to compost facilities.

How does this affect the use of compost under the state's Organic Food Program?

Compost known to be contaminated with clopyralid is prohibited from use on organic farms. Organic producers who inadvertently use contaminated compost will not lose their certification though they may experience crop losses. The Department of Agriculture's Organic Food Program is evaluating commercial compost products to determine whether there are any clopyralid contaminants. Only products with no detected residues of clopyralid will be approved for use.

For a list of commercial compost products approved for use in organic food production, visit the agency Web site at www.wa.gov/agr/fsah/organic/ofp.htm and click on "Materials."

What should homeowners and farmers do with the compost that they currently have?

Compost that was produced in 2001 or earlier could contain clopyralid. Compost that contains clopyralid residue may damage broadleaf ornamentals and vegetable crops. Homeowners and farmers should avoid using compost on ornamentals and vegetable crops unless they can determine that the compost is free of clopyralid. Such compost can, however, be used for some landscaping purposes such as establishing new lawns or turf.

How big is this problem?

It's a shock to the compost industry. The Washington Organic Recycling Council is asking composting facilities to conduct plant tests to monitor for clopyralid. Policy makers are working on solutions to best serve the compost industry, consumers and agriculture. They have asked regulatory and industry representatives to suggest ways to handle potentially contaminated materials, such as straw or manure, that are in the pipeline for compost.

Where can I get more information?

- Cliff Weed, Washington State Department of Agriculture, phone (360) 902-2036, e-mail cweed@agr.wa.gov.
- Washington State University Web site at <http://css.wsu.edu/compost/compost.htm>.

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